#### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

# (19) World Intellectual Property Organization International Bureau



### - 1 (CD1) BUXCOO (1 (CD1) BUXCOO) BEDIX BUXCOO (10 (D) BUXCOO (B) BUXCOO (B) BUXCOO (B) BUXCOO (B) BUXCOO (B)

### (43) International Publication Date 2 June 2005 (02.06.2005)

#### **PCT**

## (10) International Publication Number WO 2005/050068 A1

(51) International Patent Classification7:

F16J 9/00

(21) International Application Number:

PCT/US2004/037939

(22) International Filing Date:

12 November 2004 (12.11.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/519,711

13 November 2003 (13.11.2003) US

(71) Applicant (for all designated States except US): MERITOOL LLC [US/US]; 5 Park Avenue, P.O. Box 745, Ellicotville, NY 14731 (US).

(72) Inventor; and

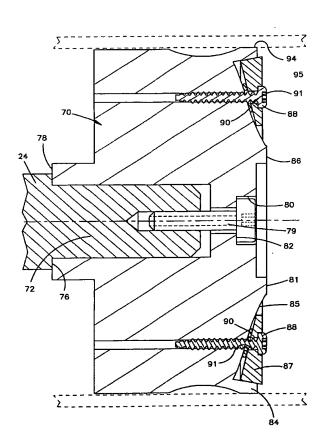
(75) Inventor/Applicant (for US only): HERMAN, Timm

[US/US]; 6277 Sugartown Road, Ellicotville, NY 14731 (US)

- (74) Agent: FISHER, Thomas, E.; Watts Hoffmann Co. LPA, 1100 Superior Avenue, Suite 1750, Cleveland, OH 44114 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,

[Continued on next page]

(54) Title: VISCOUS MATERIAL DISPENSER PISTON



(57) Abstract: A piston assembly for use in a viscous material dispenser is disclosed. The assembly has a main body with an axial bore for receipt of a push rod. The body has a face including an annular recess and an endless lip surrounding the recess. A camming washer is disposed at least in part in the recess. The washer includes a perimeteral camming surface engageable with the lip. The body and washer are connected together for limited relative axial movement when the piston assembly is advanced against material in a cartridge to dispense such material. The relative movement is effective to cause the camming surface to force the lip outwardly into tight engagement with a wall of such a cartridge.

#### WO 2005/050068 A1



ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

#### Published:

- with international search report

 before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.